

Intersection Operation

MD 118 (Relocated) and Wisteria Drive

This intersection is to operate in a semi-traffic-actuated mode with MD 118 approaches running concurrently and the Wisteria Drive approaches running concurrently. Pedestrian indications will be on all legs of the intersection and only MD 118 legs will be pushbutton activated.

Exclusive/permissive left-turn phasing will be provided for for both approaches of MD 118 onto Wisteria Drive and the existing concurrent right turn movement for westbound Wisteria Drive will be retained.

The existing cabinet will be removed and salvaged and an eight (8) phase, full-traffic-actuated, solid state digital controller with nine (9) two-channel loop detector amplifier with time delay output and all necessary equipment for a Montgomery County signal will be installed. This controller is to operate in a Nema six (6) phase, semi-traffic-actuated mode.

This traffic control signal is to be interconnected with the Montgomery County computerized signal system.

Special Notes

- The Contractor shall trench all conduits prior to roadway pavement unless noted otherwise on the plans or in the specifications.
- The Contractor shall install a new controller cabinet on MD 118 (Reloc.) at Wisteria Dr. and return the existing controller to the Montgomery County Signal Shop located on Seven Locks Road.
- Maintenance of traffic will be handled by the contractor utilizing the following standard plates for traffic control: 105.00, 105.01, 105.02, 105.309, 105.311.
- The following contact persons for SHA Office of Traffic and District 3 are as follows:

Mr. Paul Armstrong
District Engineer (Acting)
Phone# (301) 513-7311

Mr. Maj Shakib
Asst. District Engineer - Traffic
Phone# (301) 513-7359

Mr. Carter Wilson
Asst. District Engineer
Phone # (301) 513-7305

Mr. Francis Lauer
Asst. District Engineer - Utilities
Phone # (301) 513 - 7351

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone # (410) 787-7630

- The Signal Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate signal terminals and shall properly label each cable.
- The Signal Contractor is to route all proposed signal cables to the base of the existing cabinet and properly label each cable. MCDOT forces shall be responsible for the internal wiring of the cabinet.
- The Signal Contractor is to run interconnect cables to the base of each cabinet and properly tag all cables. MCDOT forces shall be responsible for performing all splices and connections of the interconnect cables.
- Interconnect shall be maintained to all traffic signals at all times.

CONSTRUCTION DETAILS

- Install 12"x 32' 2-ply steel strain pole with 250 watt HPS lamp, luminaire and 20 ft lighting arm, pedestrian signals, pushbutton and sign as shown (Note: 1-2", sch 80 PVC 90 degree conduit bend (for power service) and 2-3", sch 40 PVC 90-degree conduit bends.)
- Install handhole.
- Install 6' x 6' loop detector encased in 1/4" flexible tubing (3 turns).
- Install 1" liquid tight flexible electrical conduit sleeve for detector wire.
- Install 6' x 30' quadrapole loop detector encased in 1/4" flexible tubing, (2-4-2).
- Install 3" polyvinyl chloride electrical conduit schedule 40 (trenched).
- Install 4" PVC schedule 80 electrical conduit (trenched) prior to installation of pavement.
- Install 4" polyvinyl chloride electrical conduit schedule 40 (trenched).
- Install base-mounted cabinet and controller with all necessary equipment as shown. (Note: 1-2" polyvinyl chloride schedule 80, 90-degree conduit bend for power service, 2-4" sch 40 polyvinyl chloride 90-degree conduit bends, and 1-3" sch 40 polyvinyl chloride 90-degree conduit bend).
- Install 3/8" span wire, signals and signs as shown, signs and five-section signal heads shall be tethered using 1/4" steel span tether wire.
- Install 12" x 32' 2-ply steel strain pole with 250 watt HPS lamp, luminaire and 20 ft lighting arm, pedestrian pushbutton and sign, and pedestion signals heads (Note: one-3", sch 40 PVC 90 degree conduit bend)
- Use existing handhole.
- Use existing conduit.
- Cap and abandon existing conduit.

CONSTRUCTION DETAILS (CONT'D)

- Remove existing handhole.
- Disconnect and abandon existing loop detector.
- Remove and salvage existing steel strain pole.
- Remove existing span wire, signals and associated wiring. Return signal heads to Montgomery County.
- Remove existing span wire, signals, signs and associated wiring. Return signal heads to Montgomery County.
- Remove and salvage existing controller and cabinet.
- Use existing steel strain pole (Note: Install pedestrian signals, pedestrian pushbuttons, sign, 250 watt HPS lamp, luminaire and 20 ft lighting arm.
- Install 24" white permanent preformed pavement marking for stop line.
- Install 12" white permanent preformed pavement marking for crosswalk.
- Install 4" polyvinyl chloride electrical conduit - slotted into existing pavement.

EQUIPMENT LISTS

A. Equipment to be supplied by SHA.

ITEM NO.	QUANTITY	SPECIFICATION SECTION	DESCRIPTION
	7 EA	814	12" 1-way, three-section (R, Y, G) signal head - span mount.
	3 EA	814	12" 1-way, five-section (R,Y,YA,G,GA) signal head - span mount.
	4 EA	817	Pushbutton and sign.
	2 EA	814	Combination 1-way 5-section 12" (YA, GA) and 8" (R,Y,G) signal head - span mount.
	4 EA	814	12" 2-way, 2-section pedestrian signal heads - pole mount.
	1 EA	816	Eight-phase, (fully actuated), controller and cabinet, with all necessary equipment for Montgomery County
	9 EA	817	Two-channel loop detector amplifier with time delay output.
	71 SF	813	Sheet aluminum signs - span mount consisting of:
	2 EA		R10-12 (36" X 42") "Left turn YIELD on Green"
	1 EA		R3-5R (30" X 36") "RIGHT TURN ONLY"
	2 EA		D3-2 dual face (var x 16") "Germantown RD." sign.
	2 EA		D3-2 dual face (var x 16") "Wisteria DR." sign.

B. Equipment to be furnished and installed by the Contractor.

ITEM NO.	QUANTITY	SPECIFICATION SECTION	DESCRIPTION
	1600 LF	555	12 inch white preformed pavement marking tape.
	190 LF	555	24 inch white preformed pavement marking tape.

B. Equipment List (cont'd)

ITEM NO.	QUANTITY	SPECIFICATION SECTION	DESCRIPTION
	17 CY	801	Concrete for signal foundations
	4 EA	804	Ground rod (3/4" diameter copper x 10')

B. Equipment to be furnished and installed by the Contractor.

ITEM NO.	QUANTITY	SPECIFICATION SECTION	DESCRIPTION
	3 EA	828	12" x 32' 2 - ply steel strain pole (Note: Install 4-2 1/4" x 96" anchor bolts.)
	180 LF	805	1" liquid tight flexible electrical conduit (detector wire sleeve)
	220 LF	805	3" sch 40 polyvinyl chloride electrical conduit - (trenched)
	145 LF	805	4" sch 80 polyvinyl chloride electrical conduit - (trenched)
	71 SF	813	Install overhead signs.
	4 EA	814	Install pedestrian signal head - pole mount
	12 EA	814	Install signal head - span mount
	3475 LF	810	Loop wire (No. 14 A.W.G.) encased approx. in 1/4" flexible tubing
	3000 LF	810	2-conductor electrical cable approx.(aluminum shielded)
	1040 LF	810	2-conductor electrical cable (No. 14 A.W.G.)
	1180 LF	810	5-conductor electrical cable (No. 14 A.W.G.)
	1740 LF	810	7-conductor electrical cable (No. 14 A.W.G.)
	1310 LF	815	Sawcut
	10 EA	811	Handhole.
	1 EA	807	Control and distribution
	1 EA	816	Eight phase (fully actuated) controller and cabinet - Base Mount
	530 LF	819	steel span wire 3/8 inch diameter
	530 LF	819	steel span wire 1/4 inch diameter
	110 LF	805	4" sch 80 polyvinyl chloride electrical conduit - slotted.
	125 LF	805	4" sch 80 polyvinyl chloride electrical conduit - trenched.
	4 EA	812	20 ft lighting arm on signal structure.
	4 EA	806	250 watt high pressure sodium lamp and luminaire.
	1040 LF	810	2 conductor tray cable (No. 12 AWG)
	35 LF	810	No. 6 AWG standard bare copper ground wire.
	1 EA	xxx	Asbuilt traffic control signal.
	1 LS	xxx	Remove and salvage existing equipment, consisting of:
	3 EA		Steel strain poles.
	1 EA		Controller and cabinet.
	3 EA		Signal heads.

REVISION A



REVISIONS	APPROVALS
	<div>CHIEF, SIGNAL DESIGN SECTION</div>
	<div>ASST. DISTRICT ENGINEER, TRAFFIC</div>
	<div>CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION</div>
	<div>DIRECTOR, OFFICE OF TRAFFIC & SAFETY</div>

10/13/95 W969-452-371
TOTAL RE-BUILD ADD
SOUTH LEG OF MD 118 REL
RJM

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

ORIGINAL DRAWN BY _____
DES. BY _____
CHK. BY _____

MD 118 REL AT WISTERIA DR
GENERAL INFORMATION SHEET 1 OF 2

DATE: 12/95 F.A.P. NO. _____
SCALE: _____ S.H.A. NO. M 969-452-371
LOG MILE # _____ COUNTY: MONTGOMERY
TS/FILE NO. 2002A-GI
SHEET NO. _____ OF _____